

*Boyko V., Yevtushenko D.A.*

## **VIEW ON THE QUESTION OF ACUTE ADHESIVE INTESTINAL OBSTRUCTION**

*Kharkiv National Medical University, Ukraine*

**Abstract.** *Currently, peritoneal adhesive disease is one of the common diseases in the world, leading to the quick disability of patients and a significant reduction in quality of life. The article is devoted to necessary of analyze of the causes of peritoneal adhesive disease, adverse outcomes of acute adhesive intestinal obstruction examining genetic, immunological, biochemical and morphological features of this group of patients; distinguish anatomical and topographic criteria for the possibility of using technology as a minimally invasive diagnosis and treatment of adhesive disease of the peritoneum; develop an algorithm for diagnosis, new methods of prevention and treatment of surgical adhesive disease of the peritoneum, its complications.*

**Key words:** *Peritoneal adhesive disease, morphology, complication.*

Peritoneal adhesive disease is one of the common diseases in the world. Recently spread spectrum and volume of surgical interventions a steady rise in the incidence of postoperative development of peritoneal adhesive disease.

In connection with the widespread introduction into surgical practice surgeries on abdominal organs, the relevance problem peritoneal adhesive disease is growing steadily.

Despite intensive development of minimally invasive technologies that have significantly reduced surgical trauma, the number of the nearest and long-term complications caused by adhesion process is not reduced [5].

Abdominal adhesive disease - a serious illness, often occurring in young and working age. Patients must adhere to a strict diet, and frequent exacerbations peritoneal adhesive disease requiring hospitalization ultimately lead to reduced

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disability, emotional instability, sexual dysfunction, personality of neuroticism, disability and significant deterioration in quality of life. In typical clinical situations adhesive disease diagnosis does not present any difficulties, and the choice of method of treatment depends on the presence or absence of intestinal obstruction [7, 11].

In 1971 Dederer wrote that "acute intestinal obstruction has earned notoriety very heavy stream, difficult to diagnose and adverse outcomes for the disease" [13].

In recent decades, a growing understanding of the pathogenesis of acute adhesive intestinal obstruction, develop new ways to diagnose, treat, cure, improved methods of anesthetic management and extracorporeal detoxification [9, 18].

Common operations that cause abdominal adhesive disease - operations on the descending and rectum (25%), followed by appendectomy (15%), gynecologic surgery (14 %) and total colectomy (9%). In general, 76 % of patients developed adhesions after operations performed below the transverse colon, 14% - above the transverse colon, and in 14 % of cases the cause was peritonitis adhesive obstruction. About 1 % of all admissions to hospitals and surgical laparotomy 3% due to adhesive disease of the abdomen and its complications [1, 8, 22].

Frequency of adhesion formation varies from 67 % to 93% after surgical abdominal operations and is nearly 97% after open gynecologic surgery. In modern abdominal surgery problem of postoperative abdominal adhesions not lost its relevance [6, 12].

Acute adhesive intestinal obstruction distinguish the severity and rapid development of the pathophysiological changes in the forms of strangulation, a variety of clinical manifestations and related difficulties in the diagnosis, tactical and technical complexity of the surgical treatment and prevention [10, 19].

Therefore, postoperative mortality in acute adhesive intestinal obstruction is kept at 15% capacity for work is restored only 40 - 50% of patients, and after conservative treatment - at 30 - 35% [20].

Win acute adhesive intestinal obstruction is 87.6 % of the ileus, due to the constantly growing number of operations on the abdominal organs. Thus, surgical complications and diseases caused by adhesions may occur already in the immediate

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postoperative period. According to the summary data, the frequency of early adhesive intestinal obstruction varies between 12 % - 27 % of all types of ileus. In pediatric practice, 8 % of newborns who underwent intervention for abdominal organs, subsequently subjected to laparotomy for acute adhesive intestinal obstruction [9, 14].

Today, there are increasing work, noted the negative impact of adhesions in the pelvic area on the reproductive function of young women: 55% of patients the cause of infertility steel spikes in the fallopian tubes and ovaries, formed as a result of chronic pelvic processes. Adhesions on the background of inflammatory diseases of the internal genital organs also leads to chronic pain in the lower abdomen in 68.1 % of patients undergoing phenomenon of salpingooforit [3, 10].

In the United States over the adhesive disease in 2008, there were about 290,000 hospitalizations, and economic costs amounted to about \$ 1.5 billion per year [19].

Hospital stay after adhesiolysis performed laparotomy access in urgent procedure averages 20 days. Mortality reaches 7,0-18,0 %, and at an early form of postoperative adhesive obstruction - 19,5-50,0 %. With each subsequent attack of acute adhesive intestinal obstruction ileus recurrence risk increases with increasing [4, 16].

The rapid growth of advanced technologies in minimally invasive surgery, biology, chemistry, pharmacology and other paramedical fields of science and technology make it possible to put into practice new ways and means of prevention, diagnosis and treatment of adhesive disease. Pathogenetic sound direction in the prevention and treatment AADP is the use of various means of preventing adhesion of convergence and injured peritoneal surfaces [2, 23].

Researchers from different countries appealed to the diagnosis and treatment of adhesive disease of the peritoneum using antiadhesive barrier means. The results of their work are contradictory, possibilities of the methods are assessed differently, many issues require further research and discussion. However, most authors note promising application antiadhesive barrier means, laparoscopic and traditional interventions in patients undergoing surgery for abdominal organs [15, 24].

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At 11.6 - 38 % of previously operated patients no signs of intestinal obstruction and the only clinical manifestation of the disease are persistent abdominal pain. It is this group of patients are frequent diagnostic errors leading to unnecessary surgical interventions. Patients with abdominal adhesions often long, unsuccessfully treated without a specific diagnosis. Thus, as a rule, the diagnosis appears neurotic syndrome. Report this tactic due to the difficulty of establishing the true cause of pain [17, 21].

Leading role in the diagnosis of peritoneal adhesive disease and X-ray methods of investigation of the gastrointestinal tract. Previously developed technique of X-ray of the stomach, followed by passage of barium and follow-up of his evacuation does not always give an idea about the topic of the process, especially when there vistseroparietal adhesions. Using similar methodology to the background pneumoperitoneum enhanced its diagnostic significance. Further improvement of the method of contrast study was retrograde filling of additional colon double contrast background for the detection of colon pathology. These methods have one very significant drawback - a large radial load and invasiveness studies at low specificity and sensitivity [2, 7, 17].

Ultrasonography (USG) abdomen, widespread in recent years, opening up new possibilities in the diagnosis of peritoneal adhesive disease, especially in the development of acute adhesive intestinal obstruction. However, ultrasound helps to choose the zone entry troacars into the abdominal cavity, free of vistseroparietal adhesions [10, 15, 19].

The role of laparoscopy in the diagnosis of peritoneal adhesive disease is currently not fully understood. According to some authors, the presence of adhesions is a contraindication for laparoscopy and the risk of its use when other methods unjustified. With the advent of new technologies in endoscopic surgery and the development of safe methods of laparoscopic approach in terms of relaxation, as well as with the use of ultrasound to visualize the possibilities of the method vistseroparietal adhesions increased significantly decreased and the number of complications [4, 25].

Development and outcome after surgery reparation paramount depends on the local reaction of inflammatory cells, the state of local immunity, which controls the differentiation of progenitor cells into fibroblasts and regulate their activity. Laws of dysregulation of the immune system in the formation of adhesions remain virtually unexplored.

Lately pathogenetic search methods for prevention and impact on the adhesion process is conducted among drugs acting on immunobiological reactivity of the organism. Set of preventive measures directed only to the activation of immune and cellular elements proliferation by affecting the local inflammation.

Method laparoscopy was first used to treat the adhesive disease and its complications with high efficiency (53 to 80 %) in pediatric surgery [12, 23].

But remains undeveloped algorithm treatment of this disease, as conservative therapy provides only a temporary effect, and in 52.9 % of patients he absent. Traditional surgical interventions used in intestinal obstruction and do not give the desired effect, inevitably causing a recurrence of adhesions. To diagnose the cause of obscure abdominal pain in recent years have increasingly used the laparoscopic approach. Operative laparoscopy is widely used to treat patients with abdominal adhesions disease [10, 13, 18].

Wide-ranging discussion on the diagnosis, surgical treatment of adhesive disease abdomen indicates sustained urgency of this problem. Heterogeneity of symptoms, diagnostic difficulties and ambiguity of interpretation of the results obtained, as well as the inadequacy of existing differential criteria cause difficulty in choosing a rational method of treating a disease. It remains unclear place minimally invasive interventions in the treatment of painful forms of abdominal adhesive disease [4, 7, 12].

In connection with the above stated, we believe it is necessary to analyze the causes of peritoneal adhesive disease, adverse outcomes of acute adhesive intestinal obstruction examining genetic, immunological, biochemical and morphological features of this group of patients; distinguish anatomic and topographic criteria for the possibility of using technology as a minimally invasive diagnosis and treatment of

adhesive disease of the peritoneum; develop an algorithm for diagnosis, new methods of prevention and treatment of surgical adhesive disease of the peritoneum, its complications.

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**Резюме.** В даний час спайкова хвороба є одним з найбільш поширених захворювань у світі, що призводить до швидкої інвалідизації хворих і значного зниження якості життя. Стаття присвячена необхідності аналізу причин перитонеальної спайкової хвороби, несприятливих результатів гострої спайкової кишкової непрохідності, з дослідженням генетичних, імунологічних, біохімічних і морфологічних особливостей цієї групи хворих. Виділено анатомічні та топографічні критерії для можливого використання технології мінімально інвазивної діагностики та лікування спайкової хвороби очеревини, розробки алгоритму для діагностики, нових методів профілактики і лікування хірургічної спайкової хвороби очеревини, її ускладнень.

**Ключові слова:** спайкова хвороба, морфологія, ускладнення.

**Резюме.** В настоящее время спаечная болезнь является одним из наиболее распространенных заболеваний в мире, что приводит к быстрой инвалидизации больных и значительному снижению качества жизни. Статья посвящена необходимости анализа причин перитонеальной спаечной болезни, неблагоприятных исходов острой спаечной кишечной непроходимости, с исследованием генетических, иммунологических, биохимических и морфологических особенностей этой группы больных. Выделены анатомические и топографические критерии для возможного использования технологии минимально инвазивной диагностики и лечения спаечной болезни брюшины, разработки алгоритма для диагностики, новых методов профилактики и лечения хирургической спаечной болезни брюшины, её осложнений.

**Ключевые слова:** спаечная болезнь, морфология, осложнения.

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